Application Number: Amendment Dated:

09/890,378 10/25/2005 June 15, 2005

Reply to Office Action Dated

## LISTING OF THE CLAIMS

1. (previously presented) An insulated integrated circuit comprising:

An integrated circuit; and

An insulating layer having a dielectric constant of less than about 2. 5 is disposed on said integrated circuit, wherein said insulating layer is a polyimide film that is the polymerization product of polymerization product of an aromatic diamine having the general formula (I):

$$H_2N$$
 $R$ 
 $F_3C$ 
 $O$ 
 $R$ 
 $O$ 
 $O$ 
 $O$ 
 $O$ 
 $O$ 

and an aromatic dianhydride having the formula (II):

wherein R is an organic substituent selected from the group consisting of CF<sub>3</sub>, o-trifluoromethyl phenyl, m-trifluoromethyl phenyl, p-trifluoromethyl phenyl and 3,5 bis[(m-trifluoromethyl) phenyl]; or

the polymerization product of an ormatic dianhydride having the general formula (III):

$$\begin{array}{c|c}
CF_3 \\
CF_3 \\
CF_3
\end{array}$$

Application Number: Amendment Dated: Reply to Office Action Dated

09/890,378 10/25/2005 June 15, 2005

$$H_2N$$
 $R$ 
 $NH_2$ 

and an aromatic diamine having the formula (IV):

wherein R is a substituent selected from the group consisting of trifluoromethyl, o-trifluoromethyl phenyl, m-trifluoromethyl phenyl, p-trifluoromethyl phenyl and 3,5'-bis[(m-trifluoromethyl) phenyl];

further wherein the dielectric constant of said insulating layer is less than about 2. 5.

- 2. (original) The insulated integrated circuit according to claim 1, wherein said integrated circuit is a microprocessor.
- 3. (original) The insulated integrated circuit according to claim 1, wherein the thickness of said insulating layer is from about 10 to about 1000 microns.
- 4. (original) The insulated integrated circuit according to claim 1, wherein the thickness of said insulating layer is from about 10 to about 500 microns.
- 5. (original) The insulated integrated circuit according to claim 1, wherein the thickness of said insulating layer is from about 10 to about 100 microns.
- 6. (canceled)
- 7. (canceled)
- 8. (canceled)

Application Number: 09/890,378
Amendment Dated: 10/25/2005
Reply to Office Action Dated June 15, 2005

- 9. (original) The insulated integrated circuit according to claim 1, wherein the coefficient of thermal expansion is greater than about  $23 \times 10^{-6/9}$  C.
- 10. (original) The insulated integrated circuit according to claim 1, wherein the coefficient of thermal expansion is greater than about  $42 \times 10^{-6/6}$  C.
- 11. (original) The insulated integrated circuit according to claim 1, wherein the coefficient of thermal expansion is greater than about  $50 \times 10^{-6/9}$  C.
- 12. (previously presented) An insulated electrically conductive component comprising:

  an electrically conductive component; and

an insulating layer comprising the polylmerization product of an aromatic diamine having the general formula (I):

$$H_2N$$
 $CF_3$ 
 $NH_2$ 
 $F_3C$ 

and an aromatic dianhydride having the formula (II):

wherein R is an organic substituent selected from the group consisting of CF<sub>3</sub>, o-trifluoromethyl phenyl, m-trifluoromethyl phenyl, p-trifluoromethyl phenyl and 3,5-bis[(m-trifluoromethyl phenyl, m-trifluoromethyl phenyl, m-t

Application Number:

Amendment Dated:
Reply to Office Action Dated

09/890,378 10/25/2005 June 15, 2005

trifluoromethyl) phenyl]; or

the polymerization product of an aromatic dianhydride having the general formula (III):

$$\begin{array}{c|c}
CF_3 \\
CF_3 \\
CF_3
\end{array}$$

and an aromatic diamine having the formula (IV):

$$H_2N$$
 $R$ 
 $NH_2$ 

wherein R is a substituent selected from the group consisting of trifluoromethyl, o-trifluoromethyl phenyl, m-trifluoromethyl phenyl, p-trifluoromethyl phenyl and 3,5'-bis[(m-trifluoromethyl) phenyl], wherein

the coefficient of thermal expansion of the insulated electrically conductive component is greater than about  $23x10^{-6/0}$ C.

- 13. (previously presented) The insulated electrically conductive component according to claim 12, wherein said electrically conductive component is selected from the group consisting of capacitors, diodes, connectors and transistors.
- 14. (original) The insulated electrically conductive component according to claim 12, wherein the thickness of said insulating layer is from about 10 to about 1000 microns.

**Application Number:** 

09/890,378

Amendment Dated:

10/25/2005

Reply to Office Action Dated

June 15, 2005

15. (original) The insulated electrically conductive component according to claim 12, wherein the thickness of said insulating layer is from about 10 to about 500 microns.

- 16. (original) The insulated electrically conductive component according to claim 12, wherein the thickness of said insulating layer is from about 10 to about 100 microns.
- 17. (original) The insulated electrically conductive component according to claim 12, wherein the dielectric constant of said insulating layer is less than about 2.8.
- 18. (original) The insulated electrically conductive component according to claim 12, wherein the dielectric constant of said insulating layer is less than about 2.7.
- 19. (original) The insulated electrically conductive component according to claim 12, wherein the dielectric constant of said insulating layer is less than about 2.5.
- 20. (canceled)
- 21. (original) The insulated electrically conductive component according to claim 12, wherein the coefficient of thermal expansion is greater than about  $42 \times 10^{-6/9}$  C.
- 22. (original) The insulated electrically conductive component according to claim 1, wherein the coefficient of thermal expansion is greater than about 50x10<sup>-6/o</sup>C.
- 23. (canceled)
- 24. (canceled)
- 25. (canceled)